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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,642	01/29/2002	Albert Nazipovich Shigapov	200-1206 DP	6273
28391	7590	07/02/2004	EXAMINER	
KILLWORTH, GOTTMAN, HAGAN & SCHAEFF, L.L.P. ONE DAYTON CENTRE ONE SOUTH MAIN STREET, SUITE 500 DAYTON, OH 45402-2023				TRAN, DIEM T
		ART UNIT		PAPER NUMBER
		3748		

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/683,642	SHIGAPOV ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Diem Tran	3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
**THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-20, 22-29 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1-20, 22-26 and 29 is/are allowed.
- 6) Claim(s) 27 and 28 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

**DETAILED ACTION**

This office action is in response to the amendment filed on 4/5/04.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deeba et al. (US Patent 6,375, 910).***

Deeba discloses a diesel exhaust gas treatment system comprising:  
an oxidation catalyst for converting at least a portion of NO contained in said  
exhaust gas to NO<sub>2</sub>, said oxidation catalyst comprising platinum and a support material  
comprising zirconia-silica, said support having acid sites (see col. 3, lines 8-17);  
however, fails to disclose said catalyst having a pKa of between about 5 to 13.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide specific optimum ranges of the pKa of the catalyst, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

***Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Manson (US Patent 6,248,689) in view of Deeba et al. (US patent 6,375,910).***

Regarding claim 28, Manson discloses a diesel exhaust gas treatment system comprising:

an oxidation catalyst (170) positioned in an exhaust gas passage of a diesel engine for converting at least a portion of NO contained in said exhaust gas to NO<sub>2</sub>; said oxidation catalyst comprising platinum (see col. 7, lines 30-34); and a particulate filter located downstream of said oxidation catalyst (174) (see Figure 4, col. 7, lines 41-44), passing NO<sub>2</sub> through said particulate filter to oxidize particulate matter trapped in the filter; however, fails to disclose that said oxidation catalyst comprises a support material being zirconia-silica. Deeba teaches that it is conventional in the art, to utilize an oxidation catalyst comprising a support material being zirconia-silica (see col. 3, lines 8-17).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Deeba in the Manson system, since the use thereof would have improved the activity of the oxidation catalyst.

***Allowable Subject Matter***

Claims 1-20, 22-26, 29 are allowed.

***Response to Arguments***

Applicant's arguments filed on 4/5/04 have been considered but they are moot in view of the new ground(s) of rejection.

Art Unit: 3748

### **Conclusion**

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (703) 308-6073. The examiner can normally be reached on Monday -Friday from 8:30 a.m. - 5:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703) 308-0861.



Diem Tran  
Patent Examiner  
Art unit 3748

DT  
June 28, 2004

  
THOMAS DENION  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700